

REMARKS

A petition and fee for a three-month extension of time are enclosed. Claims 1-28 remain in the application. Claims 16 and 22 have been amended.

Applicants have addressed Examiner's comments regarding the disclosure by amending the text on page 10, paragraph 0038, to include U.S. Patent No. 6,374,853, which had been previously referred to by its application number. Applicants acknowledge and agree that the listing of references in the disclosure does not constitute a proper Information Disclosure Statement.

The section 112 rejection has been addressed by amending claim 22 to recite that "the adaptor defines a cavity" so that the "cavity" now has proper antecedent basis.

As to the section 102 and 103 rejections, applicants respectfully submit that the claimed invention is distinguishable over the cited references to Hane 4,162,041 and/or Lew 4,824,019. In claim 1 the elongated frame has at least two fluid passageways defined within the frame which permit more than one fluid stream through the frame. Clearly both systems in Hane '041 and Lew '019 lack the claimed frame.

In the Office Action, it is presumed that Hane's sprinkling device 1 teaches such a frame by its socket 4. This is incorrect. The socket 4 does not define at least two fluid passageways to permit more than one fluid stream through the frame. While the sub-pipes 3 are shown connected to the socket 4 in Fig. 1, the socket 4 does not provide any passageway whatsoever through its interior to allow the sub-pipe 3 on one side of the socket 4 to fluidly connect to another sub-pipe disposed on the opposite side of the socket (Fig. 3). The sub-pipes 3 are blocked by closure part 12. So the socket 4 not define any fluid passageway at all.

The remaining parts in Hane do not define a second passageway either. In fact, the sub-pipes 3 are merely an extension of the same fluid stream defined by the main pipe 2. This is because water feeds into the sub-pipes 3 from the main pipe 2 at the socket 5 and then branches either left or right, relative to Fig. 5, into the sub-pipes 3 and consequently flows out of the spurting holes defined in the sub-pipes. This is clearly unlike applicants' claim 1.

Lew's law-border sprinkler 1 also does not define at least two fluid passageways to permit more than one fluid stream therethrough. The sprinkler 1 has sprinkling conduit 3 which is fluidly isolated into several sprinkling compartments 14, 15 and 16 by a plurality of blockages 17 and 18. Each compartment is fed by different combinations of underlying sections of the supplying conduits 4, 5 and 6 depending on where the blockages 20, 24 and 25 and the flow path-switching ports 19, 21, 22 and 23 are located. Lew's sprinkler is clearly understood to permit only one fluid passageway through the sprinkler at any one time (col. 3, lines 30-56). A manifold valve at the upstream end of the sprinkler cycles the water supply to each supplying conduit 4, 5 and 6, one at a time, in a cyclical pattern which is typical of a conventional sprinkler system. Never is more than one sprinkling compartment 14, 15 and 16 operating at the same time. Lew's sprinkler does not permit more than one fluid stream through the system and thus cannot teach or suggest claim 1.

In amended claim 16 the frame has at least two fluid passageways defined within the frame and which extend substantially throughout the frame. This claimed feature is also not taught or suggested in either cited reference.

Hane's sockets 4 compartmentalize the water stream flowing into the sub-pipes 3. So each section of sub-pipes 3 is fluidly separated from another section of sub-pipes by the

socket 4 and thus does not define a passageway that extends throughout the frame.

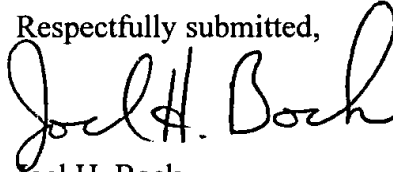
Lew teaches that the sprinkling conduit 3 must be compartmentalized along its length. Fig. 3 shows the sprinkling conduit 3 broken down into at least three compartments 14, 15 and 16 along its length (Col. 3, lines 8-29). Lew teaches that compartmentalizing of the sprinkling conduit along its length is imperative due to the pressure and volume limitations of a lawn-border sprinkler system (Col. 3, lines 45-50). Even the embodiment of Fig. 4 is merely a sub-section of a larger sprinkler system, which as Lew teaches, connects to the connecting members shown in Figs. 5-10 to form a system like that shown in Fig. 3 (Col. 4, lines 43-53; Col. 5, lines 27-34). Lew consistently teaches away from passageways which extend throughout the frame.

Finally, as to claim 26, neither Hane nor Lew have a frame which includes first and second conduits which define first and second passageways, respectively. As discussed above, the sockets 4 and 5 in Hane prevent the sub-pipes 3 from forming any so-called second passageway. None of Lew's conduits 3, 4, 5 and 6 define first and second passageways on their own due to the placement of several blockages 17, 20, 24 and 25. Lew's sprinkling conduit 3 is partitioned along its length and so are the corresponding sections of supplying conduits 4, 5 and 6 which feed water into a particular section of the sprinkling conduit 3.

For the above reasons it is believed that both Hane and Lew are wholly unlike applicants' claimed distribution tube assembly and cannot anticipate or render it obvious.

Claims 1-28 are now respectfully believed to be distinguishable over the cited references. Reconsideration and allowance of these claims is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink that reads "Joel H. Bock". The signature is written in a cursive style with a large, looping initial "J".

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

On page 10, paragraph 0038 has been amended as follows:

[0038] In Figs. 6 and 9 a further alternate embodiment of a distribution tube assembly is shown generally at 84. The distribution tube frame 20 is similar to the distribution tube frame in Figs. 2 - 4, with like parts having common reference numbers. Assembly 84 replaces the second adaptor with a regulator valve 86. The regulator valve is of the type shown and described in [co-pending application Serial No. 09/727,181, filed November 30, 2000,] U.S. Patent No. 6,374,853, which is [and] assigned to the present assignee. The disclosure of this [application] patent is incorporated herein by reference. Regulator valve 86 has a body member 88 from which an upstream coupler 90 and a stem 92 extend. A first bore 94 is formed in the coupler 90 and the body 88. A second bore 96 extends through stem 92 and body 88. The upstream coupler 90 fits into first passageway 28 such that first bore 94 is in fluid communication with passageway 28. Stem 92 fits in the second passageway 32 so second bore 96 is in fluid communication with passageway 32. The first bore 94 joins a cavity 98 which receives the working components of the regulator valve such as a spool 100 and a spring 102. Details of the regulator valve are provided in the above-referenced application. The regulator valve receives water from the first bore 94 and receives pilot pressure fluid from the second bore 96. A solenoid valve or other suitable means (not shown) may be connected to the secondary passageway 32. If pilot pressure fluid is supplied to the regulator valve 86 the valve will shut off flow through the first bore 94. If no pilot pressure fluid is supplied to the regulator valve it then permits water at regulated pressure to exit at the regulator outlet 104. The regulator outlet 104 may have internally or

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externally located threads, a barb or other like attachments to secure a hose, nozzle, or other suitable apparatus.

In the claims:

Claim 16 has been amended as follows:

16. (Amended) A distribution tube assembly for an irrigation system of the type having a main supply line for conveying fluid, the distribution tube assembly comprising a distribution tube frame having at least two fluid passageways defined therein and extending substantially throughout the frame, at least one of the fluid passageways being in fluid communication with the main supply line.

Claim 22 has been amended as follows:

22. (Amended) The distribution tube assembly of claim 17 wherein the adaptor defines a cavity which receives a regulator valve therein.